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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/771,812 | 01/29/2001 | Wolfgang F. Ruettinger | 4739 | 1300 |

7590

10/27/2003

Chief Patent Counsel
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| EXAMINER |
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LANGEL, WAYNE A

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| ART UNIT | PAPER NUMBER |
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1754

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

771812

Applicant(s)

Ruettinger et al

Examiner

Langel

Group Art Unit

1754

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 9-22-03

☒ This action is **FINAL**.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 42, 43 and 45-48 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 43, 45, 47 and 48 is/are allowed.

☒ Claim(s) 42 and 46 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

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The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 42 and 46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Korotkikh et al. in view of Mesters et al. (of record). Korotkikh et al. disclose a process for carrying out the water gas-shift reaction, wherein the catalyst for the reaction comprises aluminum oxide having a surface area of at least 10 m²/g, a catalytic agent, and cerium oxide as a promoter. (See column 3, lines 12-21.) The difference between the process disclosed by Korotkikh et al., and that recited in claims 42 and 46, is that Korotkikh et al. do not disclose that the catalytic agent should be copper and be present between 4 and 14% by weight. Mesters et al. disclose that metallic copper will catalyze the water gas-shift reaction. (See the Abstract and column 2, lines 34-68.) It would be prima facie obvious from Mesters et al. to employ copper as the catalytic agent for the catalyst of Korotkikh et al. since Korotkikh et al. teach at column 7, lines 48-51 that the catalytic agent can be any

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suitable material that catalyzes the water gas-shift reaction, and Mesters et al. clearly disclose that copper would be such a material that would catalyze the water gas-shift reaction. Moreover, the copper catalyst of Mesters et al. is deposited on a refractory oxidic carrier having a high specific surface area, as is the catalyst material of Korotkikh et al., so that it would be expected from Mesters et al. that copper would function as a catalytic agent for the catalyst of Korotkikh et al. It would be further obvious to employ the copper in an amount between 4 and 14% by weight in the catalyst of Korotkikh et al., since Mesters et al. teach that the copper should be present in an amount of at least 1% by weight (see the Abstract), and it would be within the skill of one of ordinary skill in the art to determine a suitable or optimum amount of the copper to be employed. Regarding claim 46, it is noted that the conditions recited therein are disclosed at column 18, lines 34-54 of Korotkikh et al.

Claims 43, 45, 47 and 48 are allowed.

Sugier '577 is made of record for disclosing the water gas-shift reaction using a catalyst comprising an active phase consisting of a mixed oxide of copper and chromium.

Snowden and Davies et al. are made of record for disclosing the water gas-shift reaction using catalysts comprising oxides of copper and zinc.

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Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (703) 308-0248. The examiner can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can

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be reached on (703) 308-3837. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2351.

WAL:cdc

October 21, 2003

Wayne A. Langel
WAYNE A. LANGEL
PRIMARY EXAMINER